ELSEVIER

Volume 506, Numbers 1–2, 11 January 1996

Journal of Organometallic Chemistry

Contents

Publisher's note ix

Review

Complexes of lanthanoids with neutral π donor ligands
G.B. Deacon (Clayton, Australia) and Q. Shen (Suzhou, People's Republic of China) 1

Regular Papers

Tetrachloropyridylstibines
P. Sharma and N.K. Jha (New Delhi, India) 19

Synthesis and thermal stability of binuclear biscyclopentadienyl lanthanide thiolates, X-ray crystal structure of $[(C_5H_5)_2Yb(\mu\text{-}SCH_2CH_2CH_2CH_3)]_2$
Z.-Z. Wu, Z.-E. Huang, R.-F. Cai (Shanghai, People's Republic of China), X.-G. Zhou, Z. Xu, X.-Z. You (Nanjing, People's Republic of China) and X.-Y. Huang (Fuzhou, People's Republic of China) 25

Übergangsmetall-Trifluormethyl-Komplexe: Erste Trifluormethyl-Komplexe von Gold mit Fluorphosphan-Liganden
A. Gräfe und T. Kruck (Köln, Deutschland) 31

α-Deuterium kinetic isotope effects in reactions of methyllithium: is better aggregation the cause of lower reactivity?
T. Holm (Lyngby, Denmark) 37

New rhodium(I)-π-chelate complexes with coordinated amidine bases (dbu, dbn) and their catalytic properties to polymerize phenylacetylene
J. Schniedermeier and H.-J. Haupt (Paderborn, Germany) 41

Thermolysis of $(MeCp)_2Nb(\eta^2\text{-}CO_2)R$ complexes: decarbonylation vs. insertion
P.-F. Fu, M.A. Khan and K.M. Nicholas (Norman, OK, USA) 49

Redox behaviour of ferrocene derivatives. VIII. 1,1′-Bis(diphenylphosphino)ferrocenes
P. Zanello, G. Opromolla, G. Giorgi, G. Sasso (Siena, Italy) and A. Togni (Zürich, Switzerland) 61

Synthesis, spectroscopic (Mössbauer, IR and NMR) and X-ray structural studies of diorganotin complexes of 2,2′-bipyrimidine and further NMR studies of diorganotin-pyrazine and −2,2′-azopyridine complexes
F. Caruso, M. Giomini (Rome, Italy), A.M. Giuliani and E. Rivarola (Palermo, Italy) 67

Synthesis, characterization, electrochemical properties and crystal and molecular structures of $[HOs_3(CO)_{10}(O_2CC_5H_4FeC_5H_5)]$ and $[\{Os_3H(CO)_{10}\}_2(O_2CC_5H_4FeC_5H_4CO_2)]$
S.-M. Lee, K.-K. Cheung and W.-T. Wong (Hong Kong, Hong Kong) 77

Anion complexation by bidentate Lewis acidic hosts, *ortho*-bis(fluorosilyl)benzenes
K. Tamao, T. Hayashi and Y. Ito (Kyoto, Japan) 85

Synthesis, spectroscopy and structure of phenylated cyclopentasilanes
U. Pöschl, H. Siegl and K. Hassler (Graz, Austria) 93

Synthesis and characterization of tricarbonyl[η^6-(phenylethynyl)arene]chromium complexes: crystal structure of tricarbonyl[η^6-(3-phenylethynyl)anisole]chromium
F.-E. Hong, S.-C. Lo, M.-W. Liou, Y.-T. Chang and C.-C. Lin (Taichung, Taiwan) 101

A titanium(III) tweezer complex with an embedded alkali metal ion between diynyl ligands: $[(C_5HMe_4)_2Ti(\eta^1\text{-}C{\equiv}CC{\equiv}CSiMe_3)_2]^-[Li(THF)_2]^+$
V. Varga, K. Mach (Prague, Czech Republic), J. Hiller and U. Thewalt (Ulm, Germany) 109

Reaktionen von Nitrosylkomplexen. XII. Umsetzung von $[\{C_5Me_5Fe(\mu\text{-}NO)\}_2]$ mit $[C_5Me_5Co(C_2H_4)_2]$: NO transfer vs. Cycloaddition
J. Müller, I. Sonn und T. Akhnoukh (Berlin, Deutschland) 113

Direct high yield synthesis of $[Ir(OH)(CO)(PPh_3)_2]$ from Vaska's compound by phase-transfer catalysis
S.A. Al-Jibori (Tikrit, Iraq) 119

Reactions of cationic iron P-coordinated (diphenylphosphino)alkynes with dicobalt octacarbonyl
E. Louattani, J. Suades, A. Alvarez-Larena, J.F. Piniella (Bellaterra, Spain) and G. Germain (Louvain la Neuve, Belgium) 121

The redox behaviour of ferrocenyl alcohols and ferrocenediyl-diols: crystal and molecular structure of ferrocenyl(2-furyl)phenylmethanol
G. Ferguson (Guelph, Canada), C. Glidewell (St Andrews, UK), G. Opromolla (Siena, Italy), C.M. Zakaria (St Andrews, UK) and P. Zanello (Siena, Italy) 129

Dicarbonylmolybdenum and tungsten complexes of α,β-unsaturated esters. Preparation, properties and application in the complexation of α,β-unsaturated ketones
Th. Schmidt (Mülheim an der Ruhr, Germany) 139

Cyclometallated complexes of Pd(II) and Pt(II) with 2-phenylimidazoline
C. Navarro-Ranninger, F. Zamora, I. López-Solera, A. Monge and J.R. Masaguer (Madrid, Spain) 149

A convenient preparation of pentafluorophenyl(fluoro)silanes: reactivity of pentafluorophenyltrifluorosilane
H.J. Frohn, M. Giesen, A. Klose, A. Lewin (Duisburg, Germany) and V.V. Bardin (Novosibirsk, Russia) 155

Synthesis and characterization of cyclometallated complexes of palladium(II) and manganese(I) with bidentate Schiff bases
J.M. Vila, M. Gayoso, T. Pereira, M. López Torres, J.J. Fernández, A. Fernández and J.M. Ortigueira (Santiago de Compostela, Spain) 165

Photoredox decomposition of the adduct of methyltrioxorhenium(VII) and hexacyanoferrate(II) induced by metal-to-metal charge transfer excitation
H. Kunkely and A. Vogler (Regensburg, Germany) 175

Catalytic triple carbonylation of olefins. Enantioselective synthesis of 2-oxoglutarates
M. Sperrle and G. Consiglio (Zürich, Switzerland) 177
Crystal and molecular structures of 1,2;3,4-Di-μ-*o*-methyl/*o*-chlorobenzoato-*OO'*-1,3-bis(o-methyl/o-chlorobenzoato-*O*)-1,2,4;2,3,4-di-μ_3-oxo-tetrakis[di-*n*-butyltin(IV)] and molecular structure of 1,2;3,4-Di-μ-*o*-hydroxybenzoato-*OO'*-1,3-bis(o-hydroxybenzoato-*O*)-1,2,4;2,3,4-di-μ_3-oxotetrakis[di-*n*-butyltin(IV)] compounds
S.P. Narula, S. Kaur, R. Shankar, S.K. Bharadwaj (Chandigarh, India) and R.K. Chadha (La Jolla, CA, USA) 181
Cluster chemistry XCVIII. Formation of an Ru_5–dicarbon complex: X-ray structures of $Ru_5(\mu_5\text{-}C_2)(\mu\text{-}PPh_2)_2(\mu\text{-}Cl)_2(CO)_{11}$ and $Ru_5(\mu\text{-}H)\{\mu_5\text{-}CC(PPh_2)\}(\mu\text{-}Cl)(\mu\text{-}PPh_2)(CO)_{12}$
C.J. Adams, M.I. Bruce (Adelaide, Australia), B.W. Skelton and A.H. White (Nedlands, Australia) 191
Charge-transfer salts with mononuclear and dinuclear ylide gold(I) complexes: X-ray structure of $[Au(CH_2PPh_3)_2](TCNQ)$ (TCNQ = 7,7',8,8'-tetracyanoquinodimethane)
E. Cerrada, M.C. Gimeno, A. Laguna, M. Laguna, V. Orera (Zaragoza, Spain) and P.G. Jones (Braunschweig, Germany) 203
Synthesis and characterization of new perfluoroalkylated side-chain ferrocenes and ferricinium salts
C. Guillon and P. Vierling (Nice, France) 211
Bis-η-cyclopentadienyl complexes of niobium and tungsten with silyl and stannyl ligands
M.L.H. Green and A.K. Hughes (Oxford, UK) 221
Comparative chemistry of $\mu\text{-}\eta^1:\eta^2$-allenyl and $\mu\text{-}\eta^1:\eta^2$-acetylide complexes: η^5-cyclopentadienyl complexes via alkyne-allenyl coupling in the reactions of PhC≡CPh with $[Ru_2(CO)_6\{\mu\text{-}\eta^1:\eta^2_{\beta,\gamma}\text{-}C(Ph)=C=CH_2\}(\mu\text{-}PPh_2)]$ and $[Ru_2(CO)_6\{\mu\text{-}\eta^1:\eta^2\text{-}C\equiv CPh\}(\mu\text{-}PPh_2)]$. X-Ray structures of $[\{Ru_2(CO)_4\{\mu\text{-}\eta^2(C,O),\eta^5\text{-}C_5MePh_2(C_6H_4)(O)\}(\mu\text{-}PPh_2)\}_2]$ and $[Ru_2(CO)_5\{\mu\text{-}\eta^2(C,O),\eta^5\text{-}C_5HPh_2(C_6H_4)(O)\}(\mu\text{-}PPh_2)]$
P. Blenkiron, S.M. Breckenridge, N.J. Taylor, A.J. Carty (Waterloo, Canada), M.A. Pellinghelli, A. Tiripicchio (Parma, Italy) and E. Sappa (Torino, Italy) 229
Titanocene-bis(trimethylsilyl)acetylene complexes: effects of methyl substituents at the cyclopentadienyl ligands on the structure of thermolytic products
V. Varga, K. Mach, M. Polášek, P. Sedmera (Prague, Czech Republic), J. Hiller, U. Thewalt (Ulm, Germany) and S.I. Troyanov (Moscow, Russia) 241
Thiazole complexes of diorganotin(IV) dihalides: the crystal structure of dichlorodiphenylbis(thiazole)tin(IV)
P. Alvarez Boo, M.D. Couce, E. Freijanes (Vigo, Spain), J.S. Casas, A. Castiñeiras, A. Sánchez González, J. Sordo (Santiago de Compostela, Spain) and U. Russo (Padova, Italy) 253
Synthesis, stability, and reactions of 10-Sn-5 tin ate complexes bearing four tin–carbon bonds
Y. Yamamoto, A. Sakaguchi, N. Ohashi and K.-y. Akiba (Higashi-Hiroshima, Japan) 259
Chromium carbonyl complexes containing 1,4,8,11-tetrakis(methyldiphenylphosphino)-1,4,8,11-tetraazacyclotetradecane (TPTA): the synthesis and characterization of $[Cr(CO)_4]_2TPTA$ and $[Cr(CO)_5]_4TPTA$
H. Meider, D. Matković-Čalogović and P. Planinić (Zagreb, Croatia) 265
Optically active transition-metal complexes. II. Rhenium complexes with the optically active cyclopentadienyl ligand PCp: X-ray structures of the *exo* and *endo* isomers of $PCpRe(CO)_3$ and of the derivative $PCpReNO(CH_3)PPh_3$
W.H. Bosch (Zürich, Switzerland), U. Englert, B. Pfister (Aachen, Germany), R. Stauber (Zürich, Switzerland) and A. Salzer (Aachen, Germany) 273
CpCo-moderated stereospecific dimerization of $(Me_3SiC_2)_2S$ to give [*trans*-$\{(Me_3Si)_2(Me_3SiC_2S)_2C_4\}CoCp$]: synthesis and structure of [*trans*-$\{(Me_3Si)_2[(Co_2(CO)_6)(\mu\text{-}\eta^2:\eta^2\text{-}Me_3SiC_2S)]_2C_4\}CoCp$]
H. Wadepohl, A. Wolf and H. Pritzkow (Heidelberg, Germany) 287
Schwermetall-π-Komplexe. XI. Synthese, Struktur und thermisches Verhalten von Bis(1,2,4-trimethylbenzol)thallium(I)-tetrachloroaluminat bzw. -gallat — Zum Einfluß des Gegenions auf Struktur und Stabilität eines kationischen Bis(aren)hauptgruppenmetallkomplexes
W. Frank, G. Korrell und G.J. Reiß (Kaiserslautern, Deutschland) 293
Carbonyl–molybdenum complexes of the hydrotris(3,5-dimethyl-1,2,4-triazol-1-yl)borate ligand
I.T. Macleod (Parkville, Australia), E.R.T. Tiekink (Adelaide, Australia) and C.G. Young (Parkville, Australia) 301
A chalcogen-stabilized cluster containing a s-*trans*-1,3-diene ligand: synthesis and structural characterization of $\{(CO)_6Fe_2Se_2\}_2(\mu\text{-s-trans-}C_4H_2)$
P. Mathur, A.K. Dash, Md.M. Hossain, C.V.V. Satyanarayana (Bombay, India) and B. Verghese (Madras, India) 307
Propargyl alcohol derivatives of $Fe_2(CO)_6(\mu\text{-}EE')$ (E,E' = S, Se or Te): synthesis and spectroscopic characterization of $(CO)_6Fe_2\{\mu\text{-}EC(H)=C(CH_2OH)E'\}$ (E = Se or Te; E' = S, Se or Te); Crystal structure of $(CO)_5(PPh_3)Fe_2\{\mu\text{-}SeC(CH_2OH)=C(H)Se\}$
P. Mathur, Md.M. Hossain, S. Umbarkar, C.V.V. Satyanarayana (Bombay, India) and V.G. Puranik (Pune, India) 313
Reactions of dinuclear and polynuclear complexes. XV. Reinvestigation of the reaction between $[CpMo(CO)_3H]$, allyl chloride and dimethyl disulfide: Crystal structure of $[(C_5H_5)Mo(CO)(\mu\text{-}SMe)_3Mo(CO)_2(\mu\text{-}SMe)Mo(CO)_2(C_5H_5)]$
S. Poder-Guillou, P. Schollhammer, F.Y. Pétillon, J. Talarmin (Brest, France), S.E. Girdwood and K.W. Muir (Glasgow, UK) 321
Association and exchange in dialkylgallanes in toluene solution
D.K. Russell, A.S. Grady, R.E. Linney, Z. Mahmood and R.D. Markwell (Leicester, UK) 327
Ein ionischer Ti^{IV}–Fulvalenkomplex: $[[CpTi(H_2O)]_2(C_{10}H_8, O)]^{2+}(SO_3CF_3^-)_2 \cdot 1/2THF$
U. Thewalt und T. Wöhrle (Ulm, Deutschland) 331

Preliminary communications

High α-regioselectivity in the rhodium-catalyzed hydroformylation of vinylpyrroles
R. Settambolo, A. Caiazzo and R. Lazzaroni (Pisa, Italy) 337
Ruthenium-catalysed *ortho* alkylation of hydroxyacetophenones; the functionalisation of ring C aromatic diterpenoids
P.W.R. Harris and P.D. Woodgate (Auckland, New Zealand) 339
Novel zirconium complexes derived from C_2-symmetric diamide ligands; the X-ray crystal structure of $[Zr(\eta^1\text{-}CH_2Ph)(\eta^2\text{-}CH_2Ph)\{(C_6H_3)_2\text{-}2,2'\text{-}(NCH_2C_6H_4Ph\text{-}4)_2\text{-}6,6'\text{-}Me_2\}]$
F.G.N. Cloke, T.J. Geldbach, P.B. Hitchcock and J.B. Love (Brighton, UK) 343
The first structurally authenticated divalent lanthanide siloxide derivative, $[Yb(OSiMe_2{}^tBu)(\eta^2\text{-dme})(\mu\text{-}OSiMe_2{}^tBu)]_2$
D.J. Duncalf, P.B. Hitchcock and G.A. Lawless (Brighton, UK) 347

Unsymmetrical *ansa*-metallocenes of zirconium and hafnium
W.A. Herrmann, M.J.A. Morawietz and T. Priermeier (Garching, Germany) 351
First amido-functionalized niobium and tantalum complexes of the *ansa*-structural type: synthesis and photochemical Si-N bond cleavage
W.A. Herrmann and W. Baratta (Garching, Germany) 357

Author Index 363

Subject Index 365

The publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. A leaflet describing our requirements is available from the publisher upon request.